TITLE 12. NATURAL RESOURCES

CHAPTER 15. DEPARTMENT OF WATER RESOURCES

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ARTICLE 13. WELL SPACING REQUIREMENTS; REPLACEMENT WELLS IN APPROXIMATELY THE SAME LOCATION

R12-15-1301. Definitions

In addition to the definitions in A.R.S. §§ 45-101, 45-402, and 45-591, the following words and phrases in this Article shall have the following meanings, unless the context otherwise requires:

- 1. "Abandoned well" means a well for which a well abandonment completion report has been filed pursuant to R12-15-816(E) or for which a notification of abandonment has been filed pursuant to R12-15-816(K).
- 2. "Additional drawdown" means a lowering in the water levels surrounding a well that is the result of the operation of the well and that is not attributable to existing regional rates of decline or existing impacts from other wells.
- 3. "Applicant" means any of the following:
 - a. A person who has filed an application for a permit to construct a new well or a replacement well in a new location under A.R.S. § 45-599;
 - b. A person who has filed an application for a recovery well permit under A.R.S. § 45-834.01 for a new well as defined in A.R.S. § 45-591 or, except as provided in A.R.S. § 45-834.01(B)(2) or (3), an existing well as defined in A.R.S. § 45-591;

- c. A person who has filed an application for approval to use a well to withdraw groundwater for transportation to an active management area under A.R.S. § 45-559; or
- d. A person, other than a city, town, private water company, or irrigation district, who has filed an application for a water exchange permit under A.R.S. § 45-1041.
- 4. "ADEQ" means the Arizona Department of Environmental Quality.
- 5. "Contaminated groundwater" means groundwater that has been contaminated by a release of a hazardous substance, as defined in A.R.S. § 49-201, or a pollutant, as defined in A.R.S. § 49-201.
- 6. "DOD" means the United States Department of Defense.
- 7. "EPA" means the United States Environmental Protection Agency.
- 8. "LCR plateau groundwater transporter" means a person transporting groundwater from the Little Colorado River plateau groundwater basin to another groundwater basin pursuant to A.R.S. § 45-544(B)(1).
- 9. "Notice of water exchange participant" means a person, other than a city, town, private water company, or irrigation district, named as a participant in a water exchange in a notice of water exchange filed under A.R.S. § 45-1051.
- 10. "Original well" means the well replaced by a replacement well in approximately the same location, except that if the replacement well is the latest in a succession of two or more wells drilled as replacement wells in approximately the same location under R12-15-1308 or temporary rule

R12-15-840 adopted by the director on March 11, 1983, "original well" means the well replaced by the first replacement well in approximately the same location.

- 11. "Remedial action site" means any of the following:
 - a. The site of a remedial action undertaken pursuant to the comprehensive environmental response, compensation, and liability act ("CERCLA") of 1980, as amended, 42 U.S.C. 9601, et seq., commonly known as a "superfund" site;
 - The site of a corrective action undertaken pursuant to A.R.S. Title
 49, Chapter 6, commonly known as a leaking underground storage tank ("LUST") site;
 - c. The site of a voluntary remediation action undertaken pursuant to A.R.S. Title 49, Chapter 1, Article 5;
 - d. The site of a remedial action undertaken pursuant to A.R.S. Title
 49, Chapter 2, Article 5, commonly known as a water quality assurance revolving fund ("WQARF") site;
 - e. The site of a remedial action undertaken pursuant to the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6901, et seq.; or
 - f. The site of remedial action undertaken pursuant to the Department of Defense Environmental Restoration Program, 10 U.S.C. 2701, et seq., commonly known as a "Department of Defense site" or a "DOD site."

- 12. "Replacement well" means a well drilled for the purpose of replacing another well.
- 13. "Replacement well in a new location" means a replacement well that does not qualify as a replacement well in approximately the same location under R12-15-1308.
- 14. "Replacement well in approximately the same location" means a replacement well that qualifies as a replacement well in approximately the same location under R12-15-1308.
- 15. "Well" has the meaning prescribed in A.R.S. § 45-402. An abandoned well is not a well.
- 16. "Well of record" means, with respect to an applicant, an LCR plateau groundwater transporter, or a notice of water exchange participant, any well or proposed well not owned by the applicant, LCR plateau groundwater transporter, or notice of water exchange participant, or proposed to be drilled by the applicant, LCR plateau groundwater transporter, or notice of water exchange participant, to which any of the following apply:
 - a. The well is an existing well as defined in A.R.S. § 45-591 and the owner or operator has registered the well with the Department, unless the current well information on file with the Department identifies the sole purpose or purposes of the well as one or more of the following:
 - i. Cathodic protection;

- ii. Use as a sump pump or heat pump;
- iii. Air sparging;
- iv. Injection of liquids or gasses into the aquifer or vadose zone, including injection wells that are part of an underground storage facility permitted under A.R.S. Title 45, Chapter 3.1;
- v. Monitoring water levels or water quality, including a piezometer well;
- vi. Obtaining geophysical, mineralogical, or geotechnical data;
- vii. Grounding;
- viii. Soil vapor extraction;
- ix. Electrical energy generation pursuant to a temporary permit for electrical energy generation issued under A.R.S. § 45-517;
- x. Dewatering pursuant to a dewatering permit issued under A.R.S. § 45-513 or a temporary dewatering permit issued under A.R.S. § 45-518;
- xi. Drainage pursuant to a drainage water withdrawal permit issued under A.R.S. § 45-519; or
- xii. Hydrologic testing pursuant to a hydrologic testing permit issued under A.R.S. § 45-519.01.
- b. The well is a new well as defined in A.R.S. § 45-591 for which a notice of intention to drill was not filed pursuant to A.R.S. § 45-

596 and for which a permit was not issued pursuant to A.R.S. §§ 45-599 or 45-834.01, and the owner or operator has registered the well with the Department, unless the current well information on file with the Department identifies the sole purpose or purposes of the well as one or more of the purposes in subsection (16)(a)(i) through (xii) of this Section;

- c. A filing has been made for the well pursuant to A.R.S. § 45-596(A) or (B), unless any of the following apply:
 - i. The filing has expired pursuant to A.R.S. § 45-596(E);
 - ii. The filing identifies the sole purpose or purposes of the well as one or more of the purposes in subsection (16)(a)(i) through (xii) of this Section; or
 - iii. The well is an exempt well and the director is prohibited by A.R.S. § 45-454(D)(4) from considering impacts on the well when determining whether to approve or reject a permit application filed under A.R.S. § 45-599.
- d. An application for a permit to drill the well has been received by the Department pursuant to A.R.S. § 45-599, unless the application has been rejected after exhaustion of all administrative and judicial appeals or the permit issued pursuant to the application has been revoked or has expired according to its terms or for failure to complete the well in a timely manner pursuant to A.R.S. § 45-599(G);

- e. An application for a permit pursuant to A.R.S. §§ 45-514 or 45-516 has been received by the Department pursuant to A.R.S. § 45-521, unless the application has been rejected after exhaustion of all administrative and judicial appeals or the permit issued pursuant to the application has been revoked or has expired according to its terms or for failure to complete the well before expiration of the drilling authority; or
- f. An application for a permit to drill a recovery well has been received by the Department pursuant to A.R.S. § 45-834.01, unless the application has been rejected after exhaustion of all administrative and judicial appeals or the permit issued pursuant to the application has been revoked or has expired according to its terms or for failure to complete the well in a timely manner pursuant to A.R.S. § 45-834.01(F).

R12-15-1302. Well Spacing Requirements - Applications to Construct New Wells or Replacement Wells in New Locations Under A.R.S. § 45-599

A. The director shall not approve an application for a permit to construct a new well or a replacement well in a new location under A.R.S. § 45-599 if the director determines that the withdrawals from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B) of this Section.

- B. The director shall determine that the withdrawals from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells if any of the following apply:
 - 1. Except as provided in subsection (D) of this Section, the director determines that the probable impact of the withdrawals from the proposed well or wells on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of operation of the proposed well or wells. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study delineating those areas surrounding the proposed well or wells in which the projected impacts on water levels will exceed 10 feet of additional drawdown after the first five years of operation of the proposed well or wells. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection:
 - 2. The director determines that the proposed well or wells will be located in an area of known land subsidence and the withdrawals from the proposed well or wells will likely cause unreasonably increasing damage from additional regional land subsidence. To assist the director in making a determination under this subsection,

the applicant may submit a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the withdrawals from the proposed well or wells on regional land subsidence. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or

3. Except as provided in subsection (E) of this Section, the director determines, after consulting with ADEQ, that withdrawals from the proposed well or wells will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence as of the date of the receipt of the application, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be prevented or adequately mitigated through the implementation of a program regulated under Title 49 of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study demonstrating whether the withdrawals from the proposed well or wells will have the effect described in this subsection. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection.

- C. In making a determination under subsection (B)(1), (B)(2), or (B)(3) of this Section, if the proposed well is a replacement well in a new location, the director shall take into account the collective effects of reducing or terminating withdrawals from the well being replaced combined with the proposed withdrawals from the replacement well if the applicant submits a hydrological study demonstrating those collective effects to the satisfaction of the director.
- D. If the director determines under subsection (B)(1) of this Section that the probable impact of the withdrawals from the proposed well or wells on one or more wells of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of operation of the proposed well or wells, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the withdrawals from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the

director, the applicant submits one of the following for each well of record identified in the notice:

- A signed and notarized consent form from the owner of the well of record consenting to the withdrawals from the proposed well or wells. The applicant shall use the consent form furnished by the director; or
- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- E. If the director determines that withdrawals from the proposed well or wells will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence as of the date of receipt of the application, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the withdrawals from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:

- A signed and notarized consent form from the owner of the well of record consenting to the withdrawals from the proposed well or wells. The applicant shall use the consent form furnished by the director; or
- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- F. At any time before a final determination under this Section, the applicant may:
 - Amend the application to change the location of the proposed well
 or wells or the amount of groundwater to be withdrawn from the
 proposed well or wells to lessen the degree of impact on wells of
 record or regional land subsidence; or
 - 2. Agree to construct or operate the proposed well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. The director shall indicate in the well permit that compliance with the agreement is a condition of the well permit.

R12-15-1303. Well Spacing Requirements - Applications for Recovery Well Permits Under A.R.S. § 45-834.01

- A. The director shall not approve an application for a recovery well permit under A.R.S. § 45-834.01 that is filed for a new well as defined in A.R.S. § 45-591 or, except as provided in A.R.S. § 45-834.01(B)(2) or (3), for an existing well as defined in A.R.S. § 45-591, if the director determines that the recovery of stored water from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B) of this Section.
- B. The director shall determine that the recovery of stored water from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells if any of the following apply:
 - 1. Except as provided in subsection (D) of this Section, the director determines that the probable impact of the recovery of stored water from the proposed well or wells on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of the recovery of stored water from the proposed well or wells. To assist the director in making a determination under this subsection, the applicant shall submit with the application a hydrological study delineating those areas surrounding the proposed well or wells in which the projected impacts on water levels will exceed 10 feet of additional drawdown after the first five years of the recovery of stored water from the proposed well or wells;

- 2. The director determines that the proposed recovery well or wells will be located in an area of known land subsidence and the recovery of stored water from the proposed well or wells will likely cause unreasonably increasing damage from additional regional land subsidence. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the recovery of stored water from the proposed recovery well or wells on regional land subsidence. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or
- 3. Except as provided in subsection (E) of this Section, the director determines, after consulting with ADEQ, that the recovery of stored water from the proposed well or wells will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence as of the date of receipt of the application, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be prevented or adequately mitigated through the implementation of a program regulated under Title 49

of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study demonstrating whether the recovery of stored water from the proposed well or wells will have the effect described in this subsection. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection.

- C. In making a determination under subsection (B)(1), (B)(2), or (B)(3) of this Section:
 - 1. If the proposed recovery well is a replacement well in a new location, the director shall take into account the collective effects of reducing or terminating withdrawals from the well being replaced combined with the proposed recovery of stored water from the replacement well if the applicant submits a hydrological study demonstrating those collective effects to the satisfaction of the director.
 - 2. If the proposed recovery well will be located within the area of impact, as defined in A.R.S. § 45-802.01, of an underground storage facility and the applicant will account for all of the water recovered from the well as water stored at the facility, the director shall take into account the effects of water storage at the facility on the proposed recovery of stored water from the recovery well if the

applicant submits a hydrological study demonstrating those effects to the satisfaction of the director.

- D. If the director determines under subsection (B)(1) of this Section that the probable impact of the recovery of stored water from the proposed recovery well or wells on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of operation of the proposed well or wells, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the recovery of stored water from the proposed recovery well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the recovery of stored water from the proposed recovery well or wells. The applicant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable

attempt to locate the current owner of the well of record but was unable to do so.

- E. If the director determines that the recovery of stored water from the proposed recovery well or wells will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence as of the date of receipt of the application, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the recovery of stored water from the proposed recovery well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the recovery of stored water from the proposed recovery well or wells. The applicant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable

attempt to locate the current owner of the well of record but was unable to do so.

- F. At any time before a final determination under this Section, the applicant may:
 - 1. Amend the application to change the location of the proposed recovery well or wells or the amount of stored water to be recovered from the proposed recovery well or wells to lessen the degree of impact on wells of record or regional land subsidence; or
 - 2. Agree to construct or operate the proposed recovery well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. The director shall indicate in the recovery well permit that compliance with the agreement is a condition of the recovery well permit.

R12-15-1304. Well Spacing Requirements - Wells Withdrawing Groundwater From the Little Colorado River Plateau Groundwater Basin for Transportation to Another Groundwater Basin Under A.R.S. § 45544(B)(1)

A. An LCR plateau groundwater transporter may not withdraw groundwater from a well or wells drilled in the Little Colorado river plateau groundwater basin after January 1, 1991, except a replacement well in approximately the same location or a well drilled after that date pursuant to a notice of intention to drill filed on or before that date, for transportation away from the basin pursuant to A.R.S. § 45-544(B)(1) if

- the director determines that the withdrawals for that purpose will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B) of this Section.
- B. The director shall determine that the withdrawals of groundwater from the well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells if any of the following apply:
 - 1. Except as provided in subsection (D) of this Section, the director determines that the probable impact of the withdrawals of groundwater from the well or wells on any well of record in existence when the withdrawals commenced or are proposed to commence will exceed 10 feet of additional drawdown after the first five years of the withdrawals. To assist the director in making a determination under this subsection, the LCR plateau groundwater transporter may submit to the director a hydrological study delineating those areas surrounding the LCR plateau groundwater transporter's well or wells in which the projected impacts on water levels will exceed 10 feet of additional drawdown after the first five years of the withdrawals. director may require the LCR plateau groundwater transporter to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection;

- 2. The director determines that the well or wells from which the groundwater is withdrawn are located in an area of known land subsidence and the withdrawals of groundwater will likely cause unreasonably increasing damage from additional regional land subsidence. To assist the director in making a determination under this subsection, the LCR plateau groundwater transporter may submit to the director a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the withdrawals on regional land subsidence. The director may require the LCR plateau groundwater transporter to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or
- 3. Except as provided in subsection (E) of this Section, the director determines, after consulting with ADEQ, that the withdrawals of groundwater from the well or wells will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence when the groundwater withdrawals commenced or are proposed to commence, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be

prevented or adequately mitigated through the implementation of a program regulated under Title 49 of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the LCR plateau groundwater transporter may submit to the director a hydrological study demonstrating whether the withdrawals of groundwater will have the effect described in this subsection. The director may require the LCR plateau groundwater transporter to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection.

- C. In making a determination under subsection (B)(1), (B)(2), or (B)(3) of this Section, if a well from which the groundwater is withdrawn is a replacement well in a new location, the director shall take into account the collective effects of reducing or terminating withdrawals from the well being replaced combined with the withdrawals from the replacement well if the LCR plateau groundwater transporter submits a hydrological study demonstrating those collective effects to the satisfaction of the director.
- D. If the director determines under subsection (B)(1) of this Section that the probable impact of the withdrawals of groundwater from the well or wells on any well of record in existence when the withdrawals commenced or are proposed to commence will exceed 10 feet of additional drawdown after the first five years of the withdrawals, the director shall notify the LCR plateau groundwater transporter in writing of the location of the

wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the withdrawals will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the LCR plateau groundwater transporter submits one of the following for each well of record identified in the notice:

- A signed and notarized consent form from the owner of the well of record consenting to the withdrawals. The LCR plateau groundwater transporter shall use the consent form furnished by the director; or
- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the LCR plateau groundwater transporter made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- E. If the director determines that the withdrawals of groundwater from the well or wells will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence when the groundwater withdrawals commenced or are proposed to commence, the director shall notify the LCR plateau groundwater transporter in writing of the location of the wells of record and the names and addresses of the owners of the

wells as shown in the Department's well registry. The director shall not determine that the withdrawals will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the LCR plateau groundwater transporter submits one of the following for each well of record identified in the notice:

- A signed and notarized consent form from the owner of the well of record consenting to the withdrawals. The LCR plateau groundwater transporter shall use the consent form furnished by the director; or
- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the LCR plateau groundwater transporter made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- F. At any time before a final determination under this Section, the LCR plateau groundwater transporter may agree to construct or operate the well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. Compliance with the agreement is a condition for the use of the well or wells to withdraw groundwater for transportation away from the basin pursuant to A.R.S. § 45-544(B)(1).

- R12-15-1305. Well Spacing Requirements Applications to Use a Well to

 Withdraw Groundwater for Transportation to an Active

 Management Area Under A.R.S. § 45-559
 - A. The director shall not approve an application to use a well or wells constructed after September 21, 1991 to withdraw groundwater for transportation to an active management area under A.R.S. § 45-559 if the director determines that the withdrawals for that purpose will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B) of this Section.
 - B. The director shall determine that the withdrawals of groundwater will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells if any of the following apply:

1.

Except as provided in subsection (C) of this Section, the director determines that the probable impact of the groundwater withdrawals on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of the withdrawals. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study delineating those areas surrounding the proposed well or wells in which the projected impacts of the groundwater withdrawals on water levels will exceed 10 feet of additional drawdown after the first five years of the withdrawals. The director may require the applicant to submit

- such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection;
- 2. The director determines that the proposed well or wells will be located in an area of known land subsidence and the groundwater withdrawals will likely cause unreasonably increasing damage from additional regional land subsidence. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the groundwater withdrawals on regional land subsidence. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or
- 3. Except as provided in subsection (D) of this Section, the director determines, after consulting with ADEQ, that the groundwater withdrawals will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence as of the date of receipt of the application, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be

program regulated under Title 49 of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study demonstrating whether the groundwater withdrawals will have the effect described in this subsection. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection.

C. If the director determines under subsection (B)(1) of this Section that the probable impact of the groundwater withdrawals on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of the withdrawals, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the groundwater withdrawals will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:

- A signed and notarized consent form from the owner of the well of record consenting to the withdrawals. The applicant shall use the consent form furnished by the director; or
- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- D. If the director determines that the groundwater withdrawals will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence as of the date of receipt of the application, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the groundwater withdrawals will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the withdrawals. The applicant shall use the consent form furnished by the director; or

- 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.
- E. At any time before a final determination under this Section, the applicant may:
 - 1. Amend the application to change the location of the proposed well or wells or the amount of groundwater to be withdrawn from the proposed well or wells to lessen the degree of impact on wells of record or regional land subsidence; or
 - 2. Agree to construct or operate the proposed well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. The director shall indicate in the permit that compliance with the agreement is a condition of the permit to use the well or wells to withdraw groundwater for transportation to an active management area under A.R.S. § 45-559.

R12-15-1306. Well Spacing Requirements - Applications for Water Exchange Permits Under A.R.S. § 45-1041

A. The director shall not approve an application for a water exchange permit filed under A.R.S. § 45-1041 by a person other than a city, town, private water company or irrigation district if the director determines that any new or increased pumping by the applicant from a well or wells within an

active management area pursuant to the water exchange will cause unreasonably increasing damage to surrounding land or other water users under subsection (B) of this Section.

- B. The director shall determine that new or increased pumping by the applicant from a well or wells within an active management area will cause unreasonably increasing damage to surrounding land or other water users if any of the following apply:
 - 1. Except as provided in subsection (C) of this Section, the director determines that the probable impact of the new or increased pumping on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of the pumping. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study delineating those areas surrounding the proposed well or wells in which the projected impacts of the new or increased pumping on water levels will exceed 10 feet of additional drawdown after the first five years of the pumping. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection;
 - The director determines that the new or increased pumping will occur in an area of known land subsidence and the pumping will likely cause unreasonably increasing damage from additional

regional land subsidence. To assist the director in making a determination under this subsection, the applicant may submit a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the new or increased pumping on regional land subsidence. The director may require the applicant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or

3. Except as provided in subsection (D) of this Section, the director determines, after consulting with ADEQ, that the new or increased pumping will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence as of the date of receipt of the application, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be prevented or adequately mitigated through the implementation of a program regulated under Title 49 of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the applicant may submit with the application a hydrological study demonstrating whether the new or increased pumping will have the effect described in this subsection. If the applicant does not submit such a hydrological study with the application, the director may require the applicant to submit the study if the director determines that the study will assist the director in making a determination under this subsection.

- C. If the director determines under subsection (B)(1) of this Section that the probable impact of the new or increased pumping on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of the pumping, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the new or increased pumping will cause unreasonably increasing damage to surrounding land or other water users under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the new or increased pumping. The applicant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable

attempt to locate the current owner of the well of record but was unable to do so.

- D. If the director determines that the new or increased pumping will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence as of the date of receipt of the application, the director shall notify the applicant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the new or increased pumping will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the applicant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the new or increased pumping. The applicant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the applicant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.

- E. At any time before a final determination under this Section, the applicant may:
 - Amend the application to change the location of the proposed well
 or wells or the amount of the new or increase pumping to lessen
 the degree of impact on wells of record or regional land
 subsidence; or
 - 2. Agree to construct or operate the proposed well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. The director shall indicate in the water exchange permit that compliance with the agreement is a condition of the water exchange permit.

R12-15-1307. Well Spacing Requirements - Notices of Water Exchange Under A.R.S. § 45-1051

- A. A notice of water exchange participant may not participate in a water exchange for which a notice is filed under A.R.S. § 45-1051 if the director determines that any new or increased pumping by the person from a well or wells within an active management area pursuant to the water exchange will cause unreasonably increasing damage to surrounding land or other water users under subsection (B) of this Section.
- B. The director shall determine that new or increased pumping from the well or wells in an active management area will cause unreasonably increasing damage to surrounding land or other water users if any of the following apply:

- 1. Except as provided in subsection (C) of this Section, the director determines that the probable impact of the new or increased pumping on any well of record in existence when the pumping commenced or is proposed to commence will exceed 10 feet of additional drawdown after the first five years of the pumping. To assist the director in making a determination under this subsection, the notice of water exchange participant may submit to the director a hydrological study delineating those areas surrounding the notice of water exchange participant's well or wells in which the projected impacts of the new or increased pumping on water levels will exceed 10 feet of additional drawdown after the first five years of the pumping. The director may require the notice of water exchange participant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection;
- 2. The director determines that the new or increased pumping is in an area of known land subsidence and the pumping will likely cause unreasonably increasing damage from additional regional land subsidence. To assist the director in making a determination under this subsection, the notice of water exchange participant may submit to the director a hydrological study, which may include a geophysical evaluation, demonstrating the impact of the pumping on regional land subsidence. The director may require the notice

of water exchange participant to submit such a hydrological study if the director determines that the study will assist the director in making a determination under this subsection; or

3. Except as provided in subsection (D) of this Section, the director determines, after consulting with ADEQ, that the new or increased pumping will likely cause the migration of contaminated groundwater from a remedial action site to a well of record in existence when the pumping commenced or is proposed to commence, resulting in a degradation of the quality of the water withdrawn from the well of record so that the water will no longer be usable for the purpose for which it is currently being used without additional treatment, and that the damage to the owner of the well of record will not be prevented or adequately mitigated through the implementation of a program regulated under Title 49 of the Arizona Revised Statutes, or a program regulated by EPA or DOD. To assist the director in making a determination under this subsection, the notice of water exchange participant may submit to the director a hydrological study demonstrating whether the new or increased pumping will have the effect described in this subsection. The director may require the notice of water exchange participant to submit such a study if the director determines that the study will assist the director in making a determination under this subsection.

- C. If the director determines under subsection (B)(1) of this Section that the probable impact of the new or increased pumping on any well of record in existence when the pumping commenced or is proposed to commence will exceed 10 feet of additional drawdown after the first five years of the pumping, the director shall notify the notice of water exchange participant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the new or increased pumping will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(1) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the notice of water exchange participant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the new or increased pumping. The notice of water exchange participant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the notice of water exchange participant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.

- D. If the director determines that the new or increased pumping will have the effect described in subsection (B)(3) of this Section on one or more wells of record in existence when the pumping commenced or is proposed to commence, the director shall notify the notice of water exchange participant in writing of the location of the wells of record and the names and addresses of the owners of the wells as shown in the Department's well registry. The director shall not determine that the new or increased pumping will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells under subsection (B)(3) of this Section if within 60 days after the date on the notice, or a longer time period approved by the director, the notice of water exchange participant submits one of the following for each well of record identified in the notice:
 - A signed and notarized consent form from the owner of the well of record consenting to the new or increased pumping. The notice of water exchange participant shall use the consent form furnished by the director; or
 - 2. Evidence satisfactory to the director that the address of the owner of the well of record as shown in the Department's well registry records is inaccurate and that the notice of water exchange participant made a reasonable attempt to locate the current owner of the well of record but was unable to do so.

E. At any time before a final determination under this Section, the notice of water exchange participant may agree to construct or operate the well or wells in a manner that lessens the degree of impact on wells of record or regional land subsidence. Compliance with the agreement is a condition for the use of the well to pump water for the water exchange.

R12-15-1308. Replacement Wells in Approximately the Same Location

- A. For purposes of A.R.S. §§ 45-544, 45-596, and 45-597, a replacement well in approximately the same location is a proposed well to which all of the following apply:
 - 1. The proposed well will be located no greater than 660 feet from the original well, and the location of the original well can be determined at the time the notice of intention to drill the proposed well is filed;
 - 2. Except as provided in subsections (A)(3) and (A)(4) of this Section, the proposed well will not annually withdraw an amount of water in excess of the maximum annual capacity of the original well. The director shall determine the maximum annual capacity of the original well by multiplying the maximum pump capacity of the original well in gallons per minute by 525,600, and then converting the result into acre-feet by dividing the result by 325,851 gallons. The director shall presume that the maximum pump capacity of the original well is the maximum pump capacity

of the well in gallons per minute as shown in the Department's well registry records, except that:

- a. If the director has reason to believe that the maximum pump capacity as shown in the Department's well registry records is inaccurate, or if the applicant submits evidence demonstrating that the maximum pump capacity as shown in the Department's well registry records is inaccurate, the director shall determine the maximum pump capacity by considering all available evidence, including the depth and diameter of the well and any evidence submitted by the applicant; or
- b. If the Department's well registry records do not show the maximum pump capacity of the original well, the director shall not approve the proposed well as a replacement well in approximately the same location unless the applicant demonstrates to the director's satisfaction the maximum pump capacity of the original well;
- 3. If a well permit was issued for the original well under A.R.S. § 45-599, the proposed well will not annually withdraw an amount of groundwater in excess of the maximum annual volume set forth in the well permit;
- 4. If a recovery well permit was issued for the well to be replaced pursuant to A.R.S. § 45-834.01(B) and the permit sets forth a

maximum annual volume of stored water that may be recovered from the well, the proposed well will not annually recover an amount of stored water in excess of the maximum annual volume set forth in the recovery well permit;

- 5. If the well to be replaced has been physically abandoned in accordance with R12-15-816, a notice of intention to drill the proposed well is filed no later than 90 days after the well to be replaced was physically abandoned; and
- 6. If the proposed well will be used to withdraw groundwater from the Little Colorado river plateau groundwater basin for transportation away from the basin pursuant to A.R.S. § 45-544(B)(1), one of the following applies:
 - a. The original well was drilled on or before January 1, 1991
 or was drilled after that date pursuant to a notice of intention to drill that was on file with the Department on that date; or
 - b. The director previously determined that the withdrawal of groundwater from the original well for transportation away from the Little Colorado river plateau groundwater basin complies with R12-15-1304.
- B. After a replacement well in approximately the same location is drilled, the replacement well may be operated in conjunction with the original well and any other wells that replaced the original well if the total annual

withdrawals from all wells do not exceed the maximum amount allowed under subsection (A)(2), (A)(3), or (A)(4) of this Section, whichever applies.

- C. A proposed well may be drilled as a replacement well in approximately the same location for more than one original well if the criteria in subsections (A)(1), (A)(5), and (A)(6) of this Section are met with respect to each original well and if the total annual withdrawals from the proposed well will not exceed the combined maximum annual amounts allowed for each original well under subsections (A)(2), (A)(3), or (A)(4) of this Section, whichever apply.
- D. The director may include conditions in the approval of the notice of intention to drill the replacement well to ensure that the drilling and operation of the replacement well meets the requirements of this Section.